

FIG. 1



SP 0	SP 4	C 8	C 12	C 16	C 20	C 24	C 28
R 1	SP 5	C 9	C 13	C 17	C 21	C 25	C 29
R 2	SP 6	SP 10	SP 14	SP 18	C 22	C 26	C 30
SP 3	SP 7	R 11	R 15	SP 19	C 23	C 27	C 31
C 32	SP 36	SP 40	SP 44	SP 48	C 52	C 56	C 60
C 33	C 37	C 41	C 45	C 49	C 53	C 57	C 61
C 34	C 38	C 42	C 46	C 50	C 54	C 58	C 62
C 25	C 39	C 43	C 47	C 51	C 55	C 59	C 63

FIG. 2A

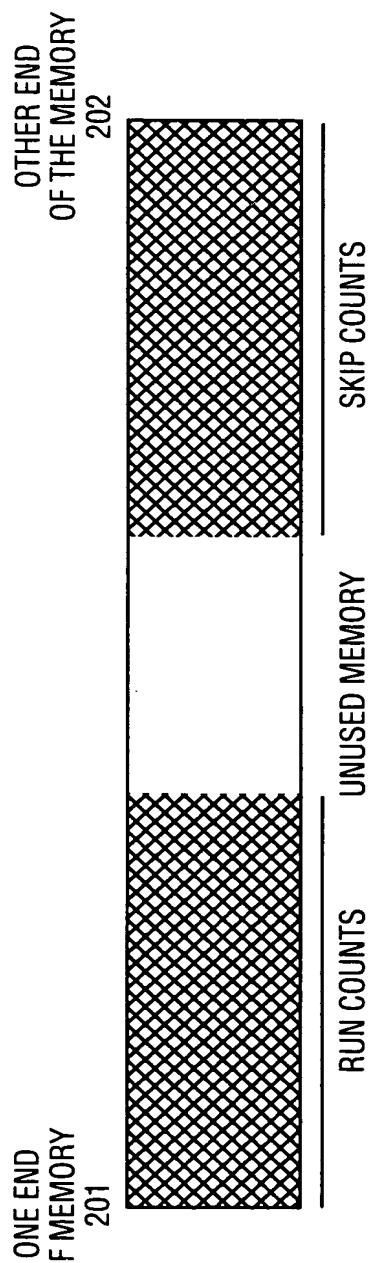
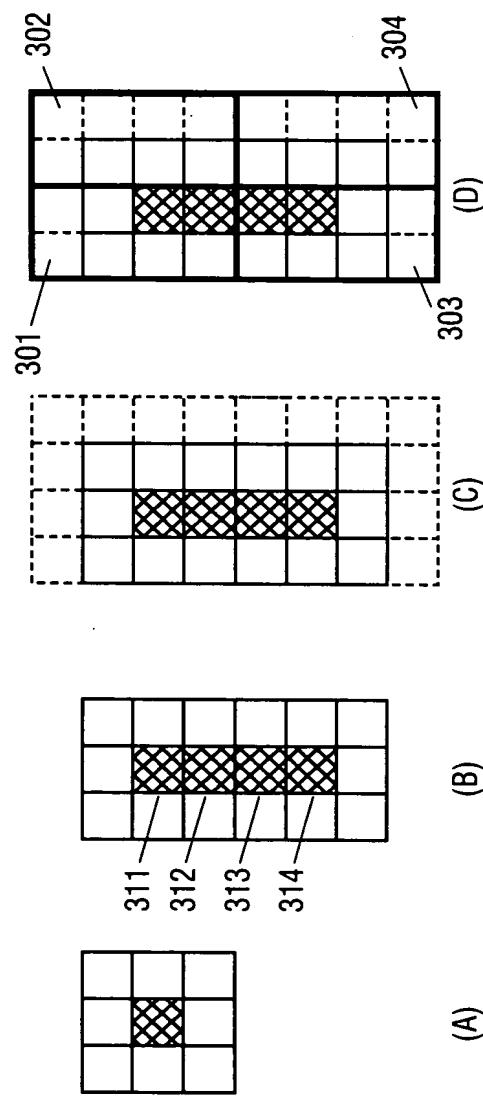


FIG. 2B





	0	1	2	3	4	5	6	7
0	A	B	A	B	A	B	A	B
1	C	D	C	D	C	D	C	D
2	A	B	A	B	A	B	A	B
3	C	D	C	D	C	D	C	D
0	A	B	A	B	A	B	A	B

FIG. 4

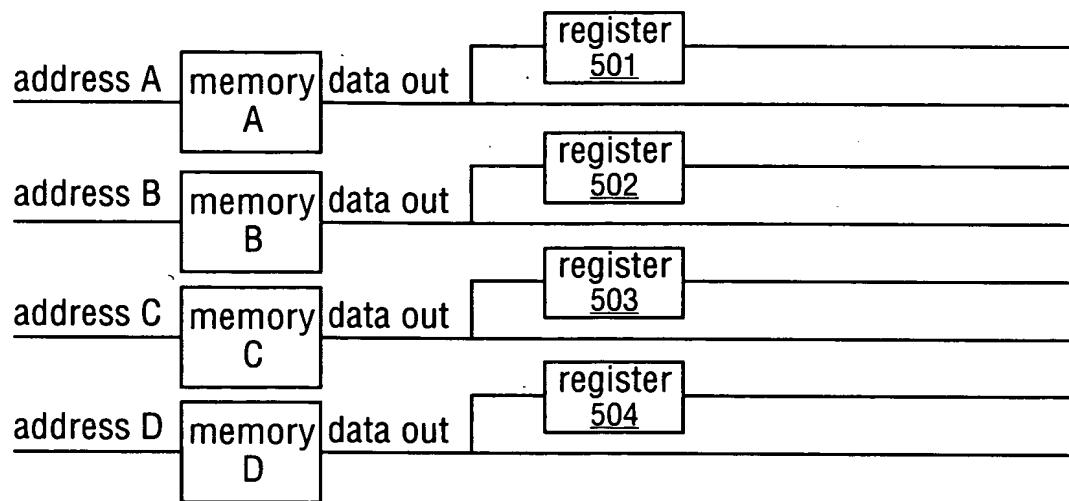


FIG. 5

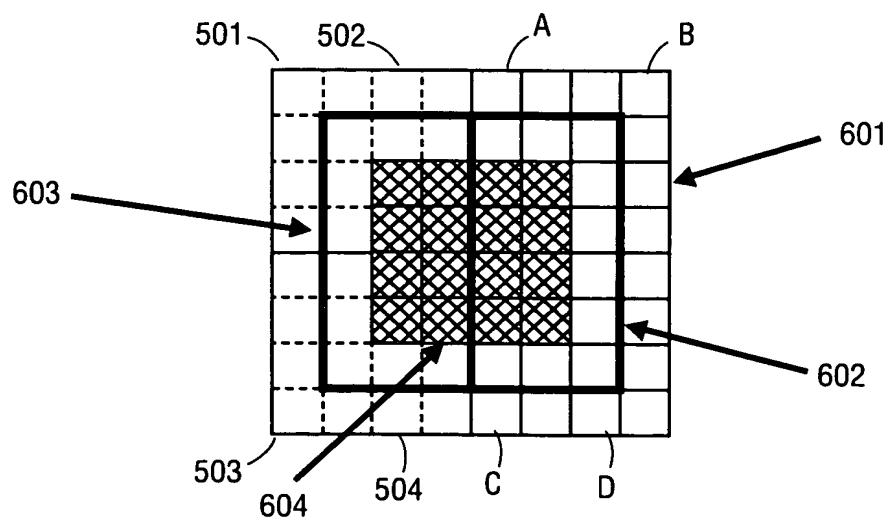


FIG. 6

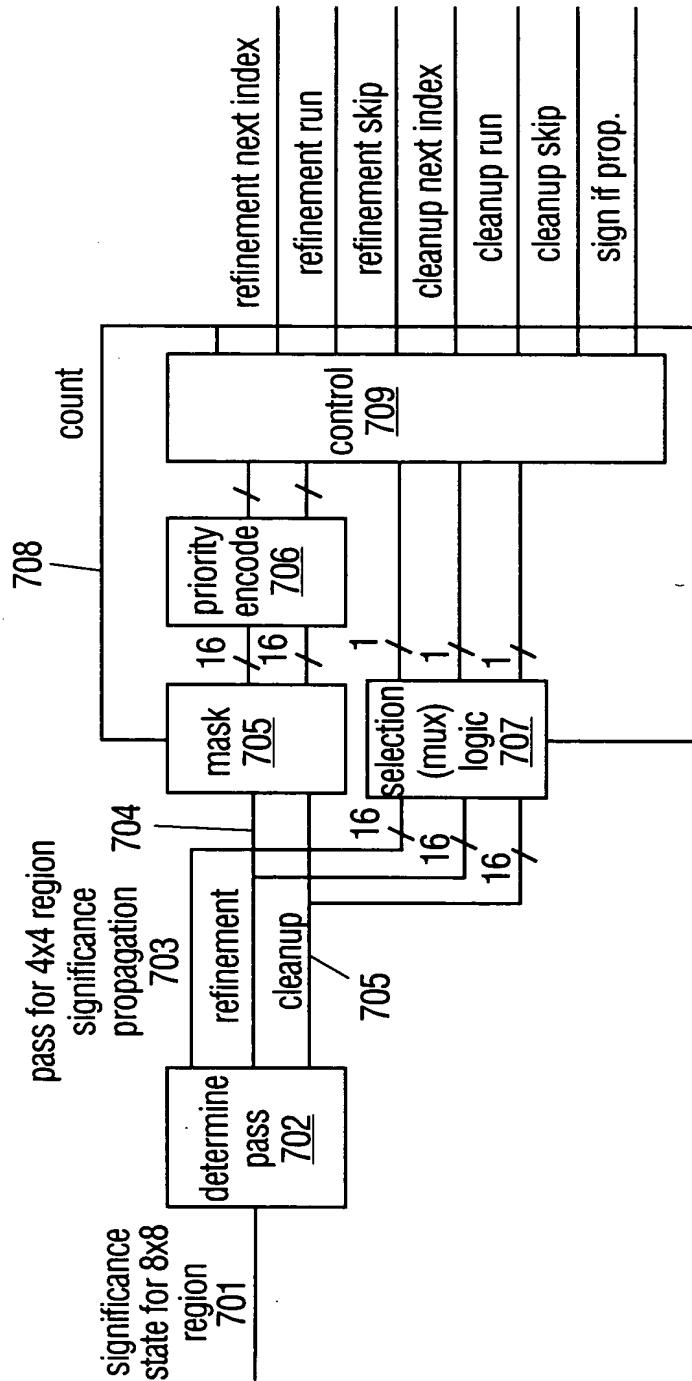


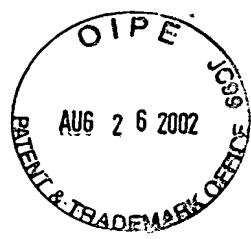
FIG. 7

SP pass: 10^2 for SP pass coefficients
6 for C and R pass coefficients
C pass: 4^2 for C pass coefficients
R pass: 2 for R pass
total: 36 clocks = 2.25 clocks per coefficient

SP = significance propagation
C = cleanup
R = refinement

SP	SP	SP	SP
C	C	C	C
SP	SP	SP	SP
SP	R	R	SP

FIG. 8



	0	1	2	3
0	A		A	
1	B		B	
2	A		A	
3	B		B	
0	A		A	

FIG. 9

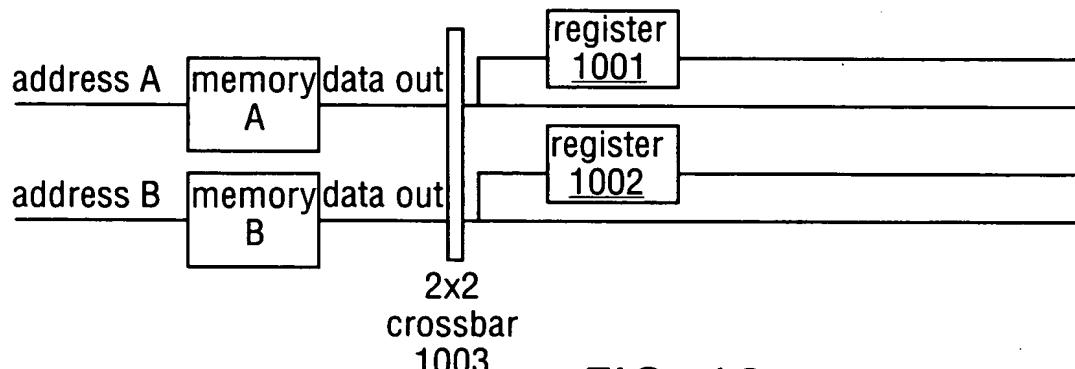


FIG. 10

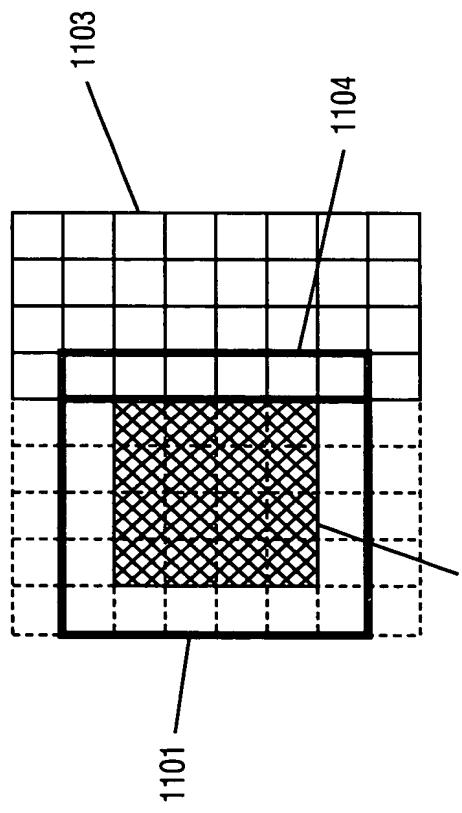


FIG. 11

1102

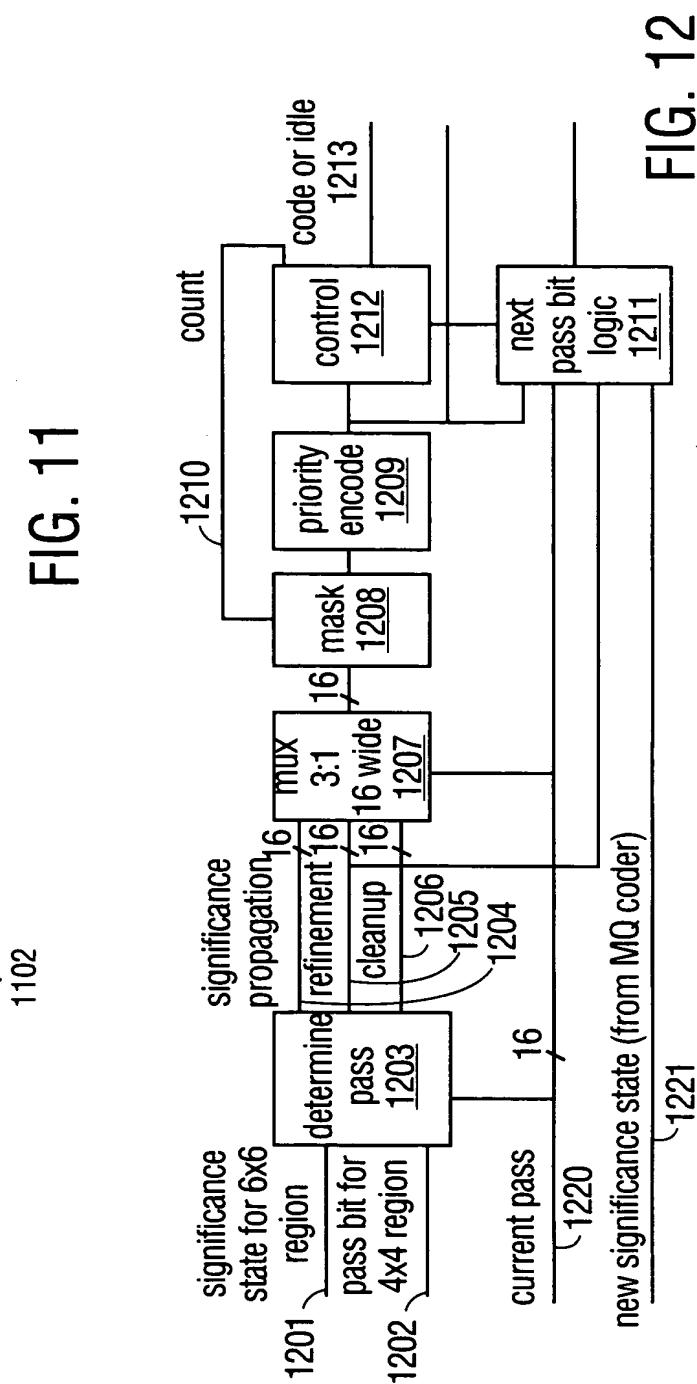


FIG. 12

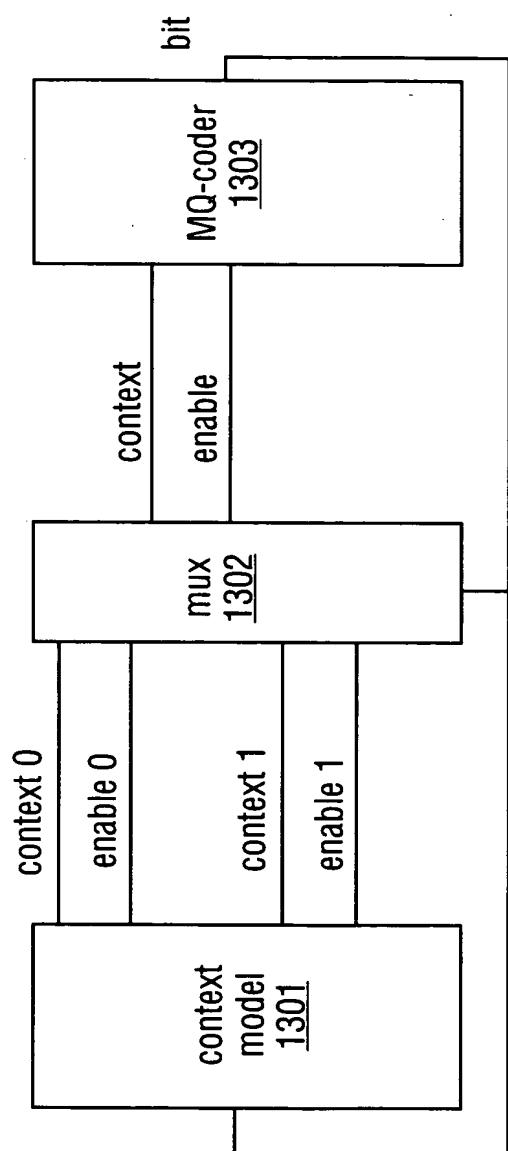


FIG. 13

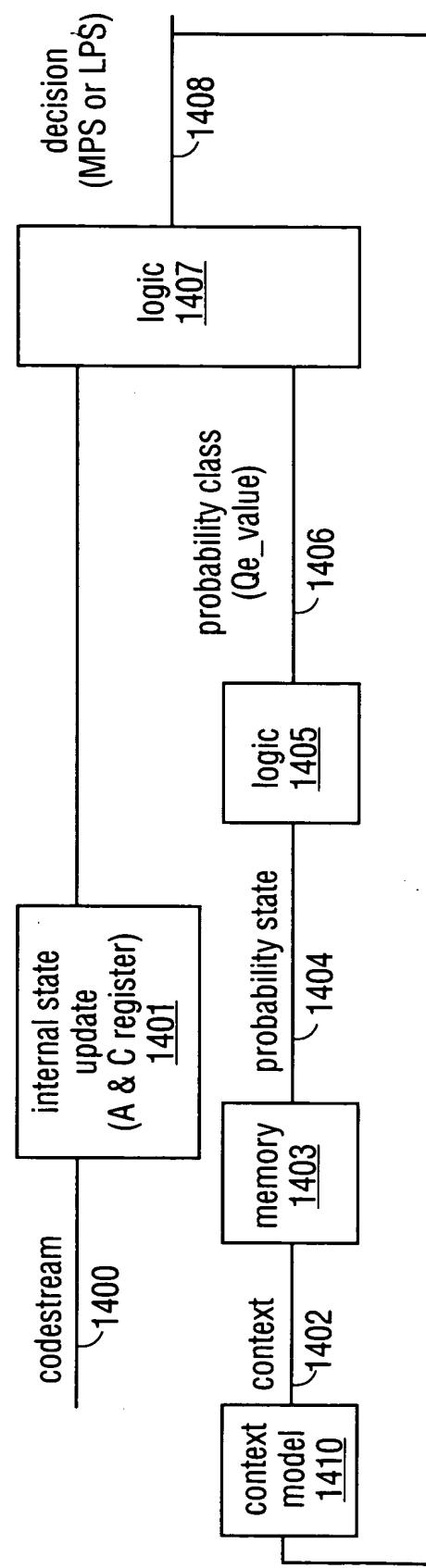


FIG. 14A

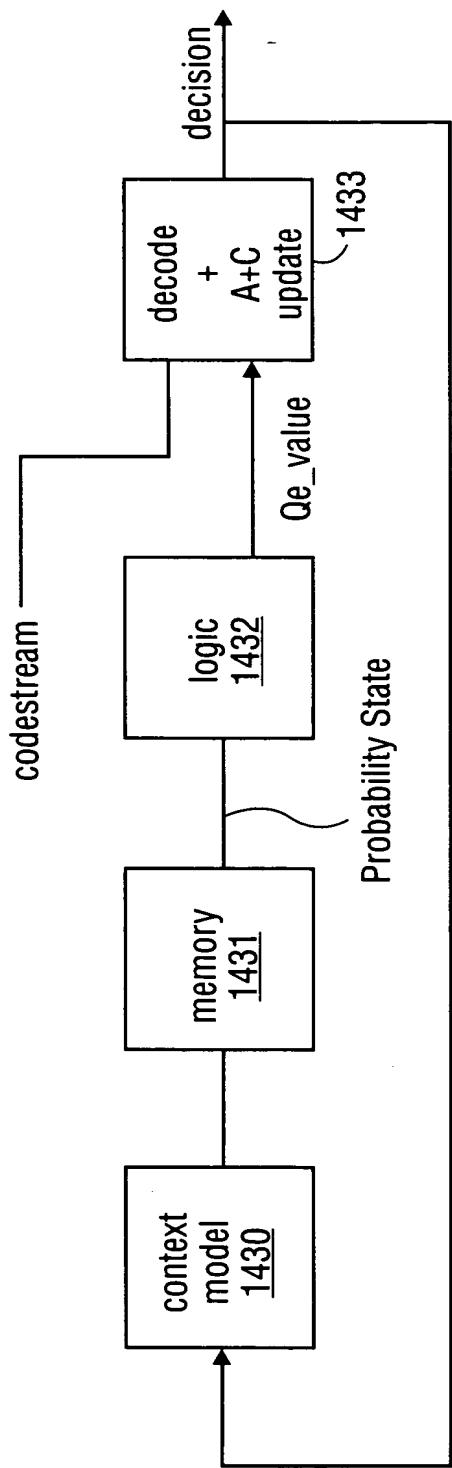
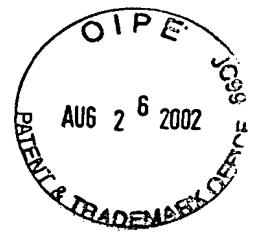


FIG. 14B

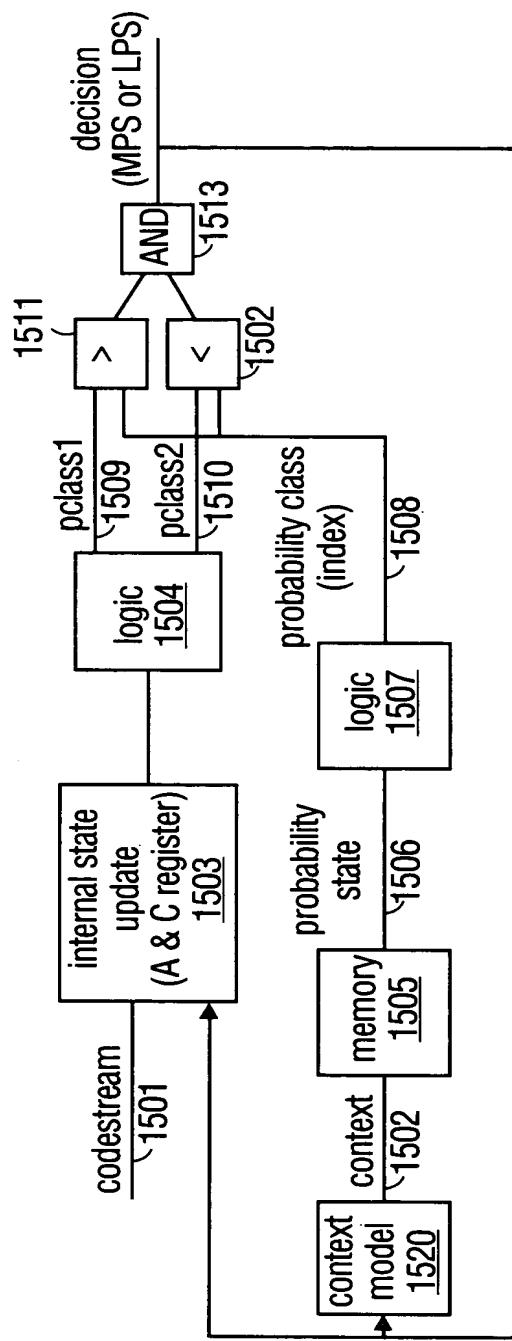


FIG. 15

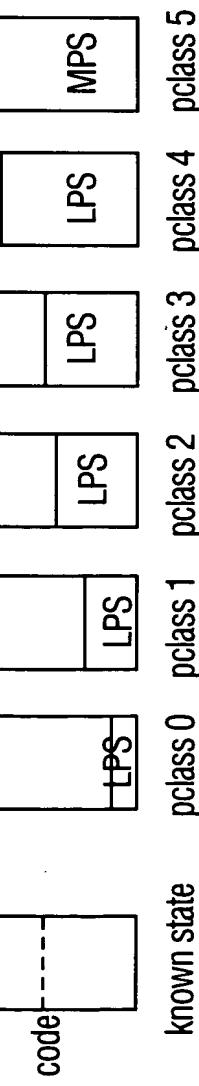
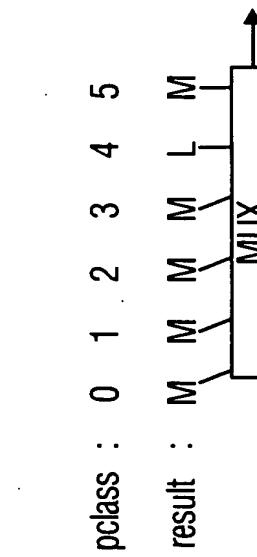


FIG. 16A

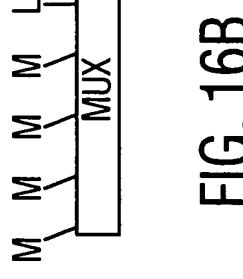


FIG. 16B



5MPS
4 MPS
3 MPS
2 MPS
1 MPS
LPS

FIG. 17



luminance

A	A	A	D
A	A		
A	A		
		A	A
		A	A

chrominance

B	B	B	D
B	B		
B	B		
		B	B
		B	B

chrominance

C	C	C	D
C	C		
C	C		
		C	C
		C	C

(A)

A	A	A	B
A	A		
A	A		
		A	A
		A	A

C	C	C	D
C	C		
C	C		
		C	C
		C	C

E	E	E	F
E	E		
E	E		
		E	E
		E	E

(B)

F	F	B	C
F	F		
A	A		
A	A		
		A	A
		A	A

G	G	C	F
G	G		
B	C		
B	C		
		D	H
		D	H

E	E	E	E
E	E		
E	E		
D	D		
D	D		
		G	H
		G	H

(C)

FIG. 18



luminance

A	A	A	B
A	A		
A	A		
B		A	

chrominance

C	C	C	
C	C		
C	C		
C			

chrominance

D	D	D	
D	D		
D	D		
D			

(A)

F	F	F	C
A	A		
F	F		
A		B	

B	B	C	
C	C		
A	B		
D			

D	D	F	
E	E		
D	E		
E			

(B)

A	A	A	C
A	A		
A	A		
B		D	

E	E	E	
E	E		
E	E		
F			

G	G	G	
G	G		
G	G		
H			

(C)

FIG. 19



luminance

A	A	D	C
A	A		
D	A		
A		B	

chrominance

B	B	D	
B	B		
D	B		

chrominance

C	C	D	
C	C		
D	C		

(A)

A	A	A	C
A	A		
A	A		
B		D	

E	E	E	
E	E		
E	E		

F	F	F	
F	F		
F	F		

(B)

A	A	H	E
A	A		
B	A		
C		D	

F	F	H	
F	F		
F	F		

G	G	H	
G	G		
G	G		

(C)

FIG. 20

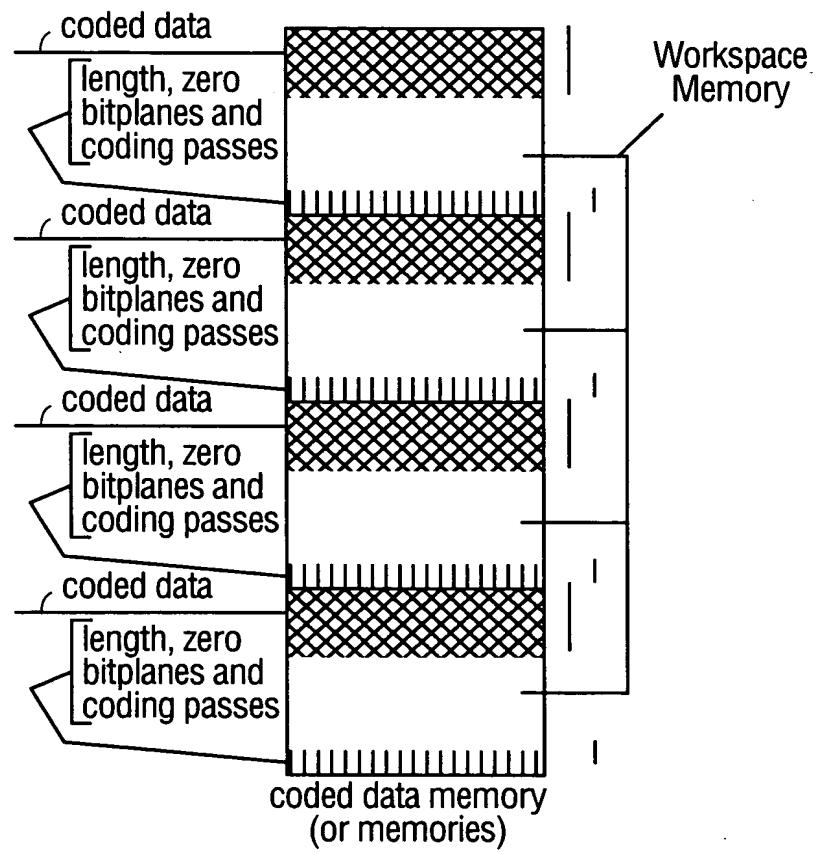


FIG. 21

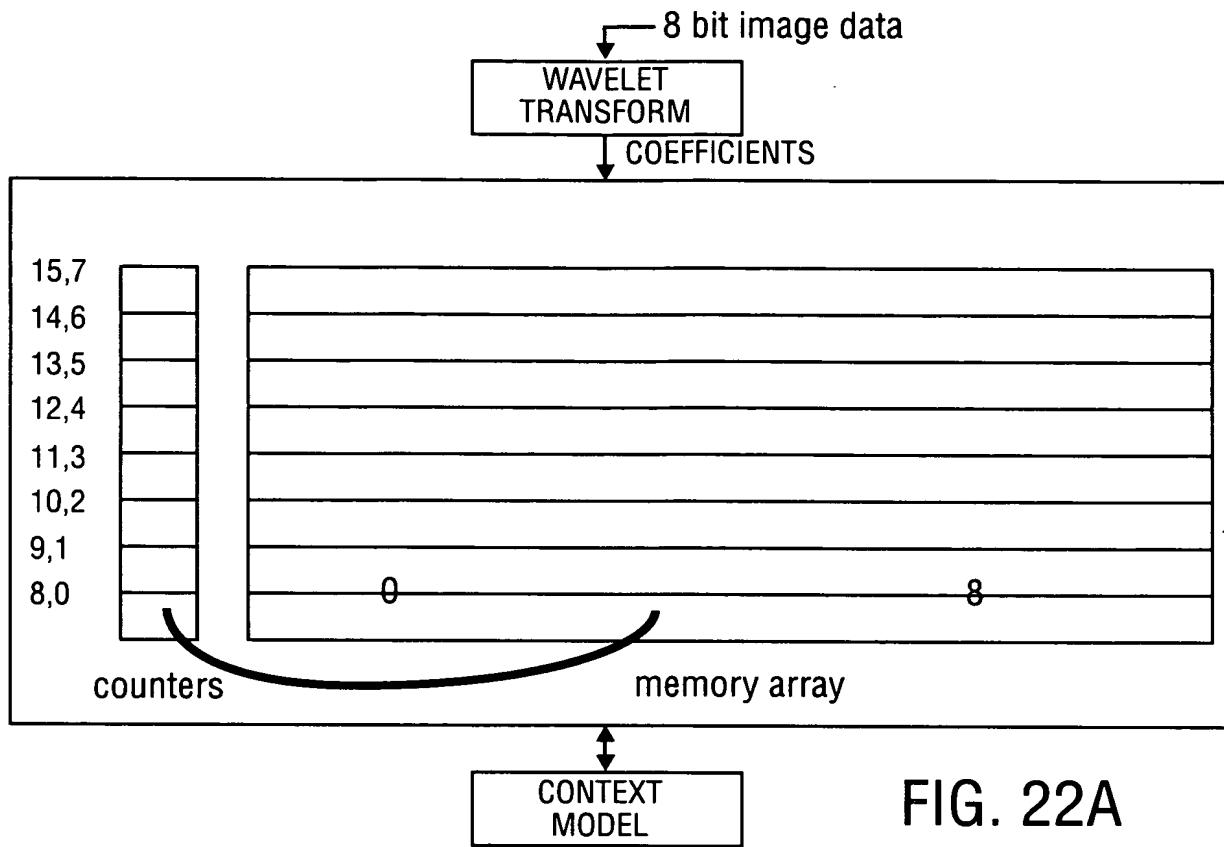


FIG. 22A

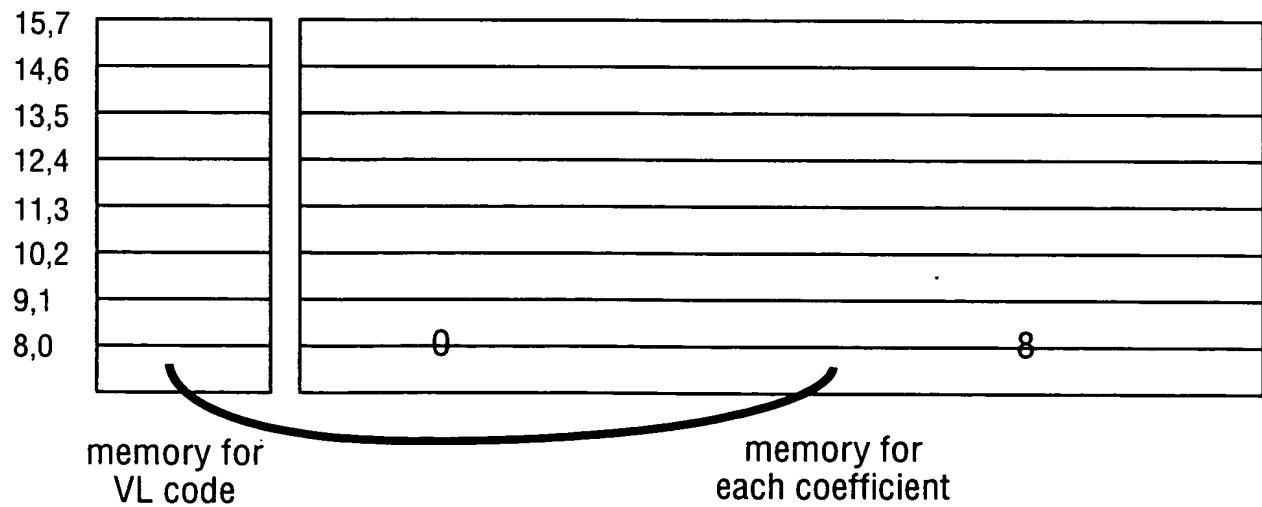


FIG. 23

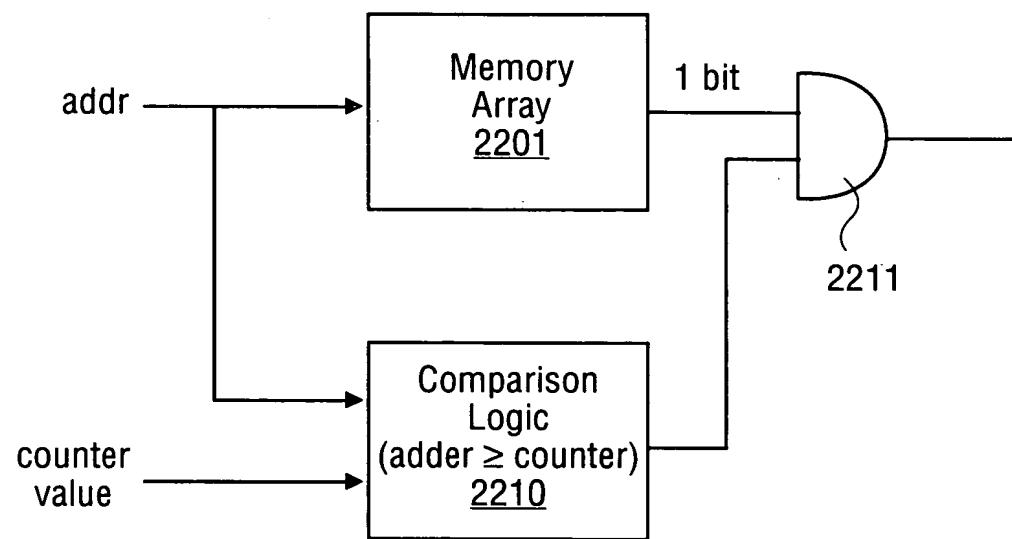
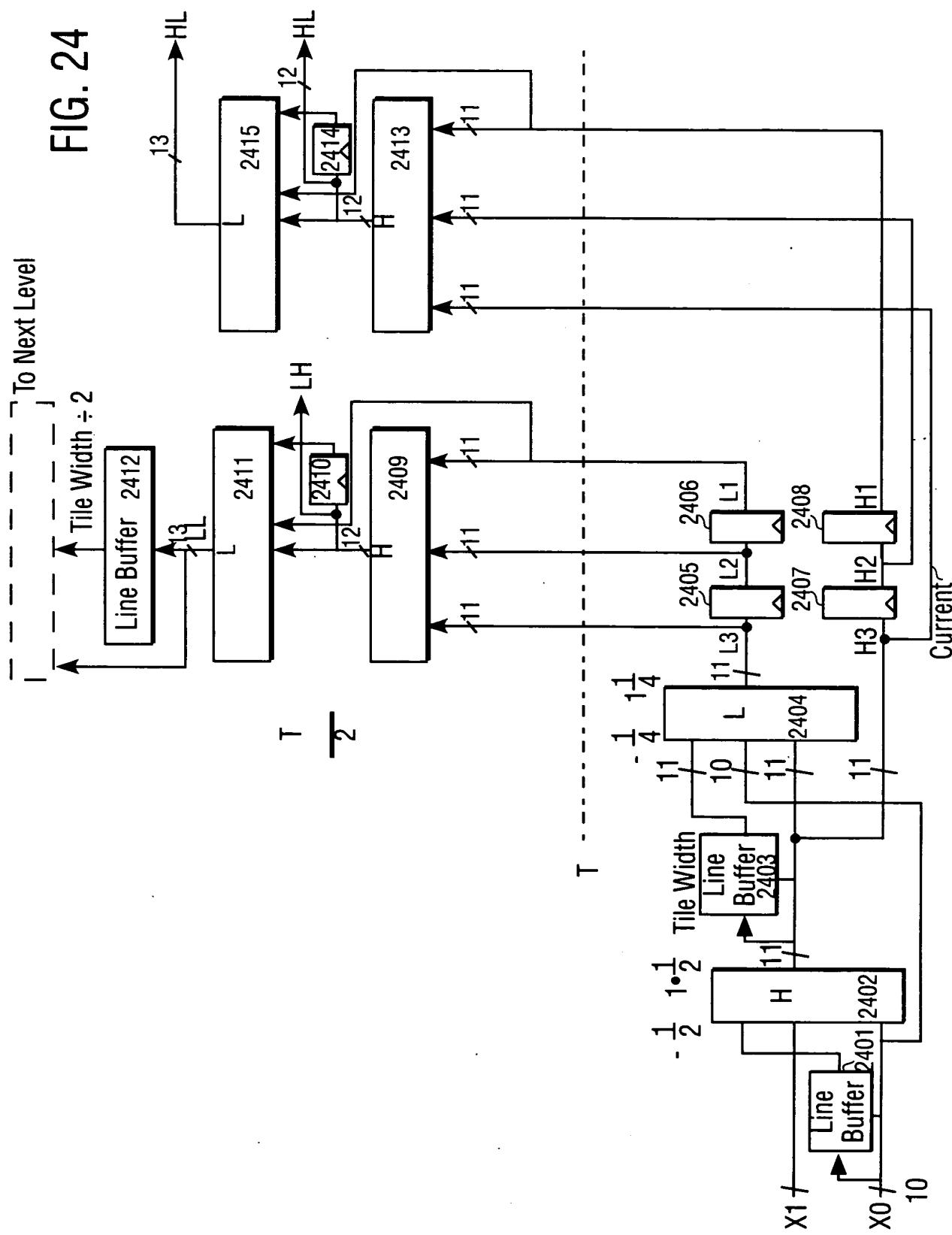


FIG. 22B



FIG. 24



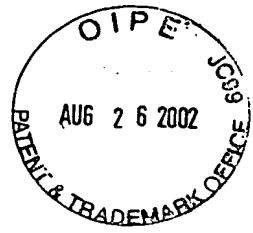


FIG. 25A

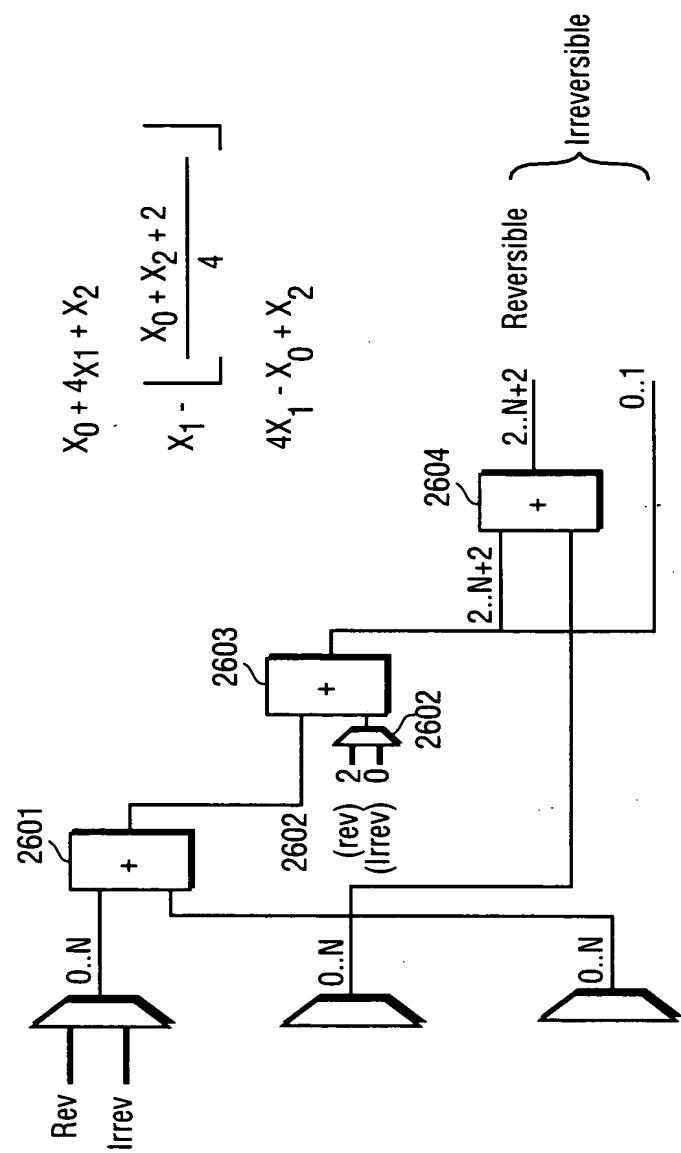
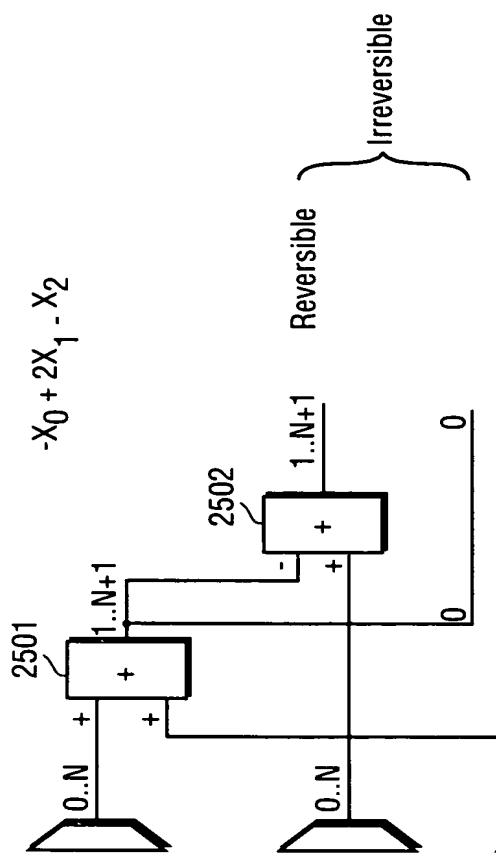


FIG. 26A



FIG. 25B

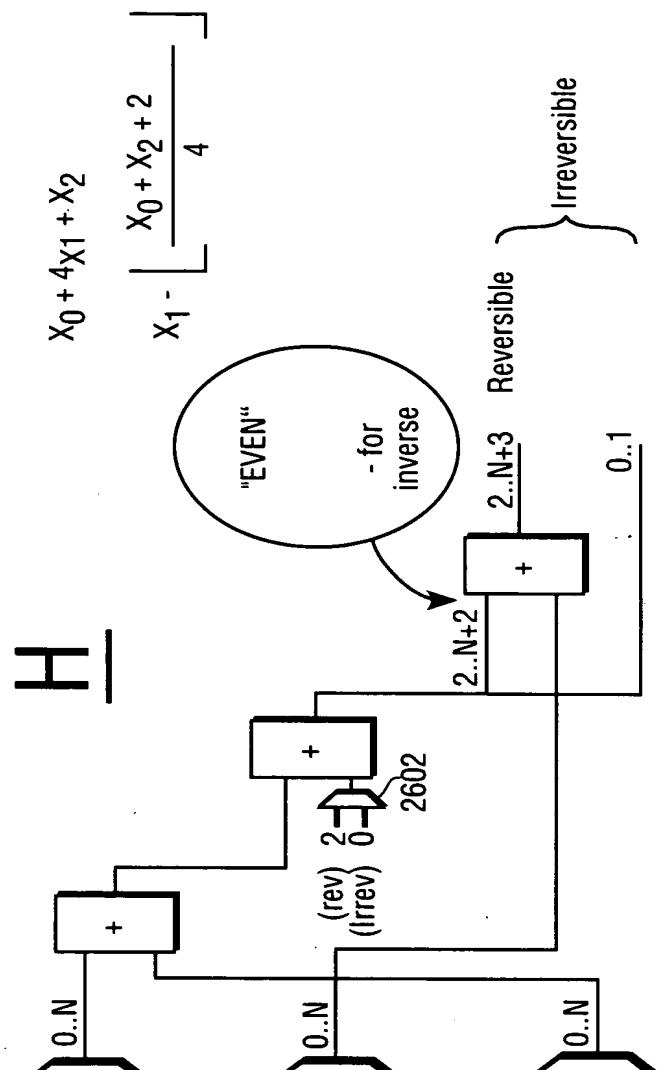
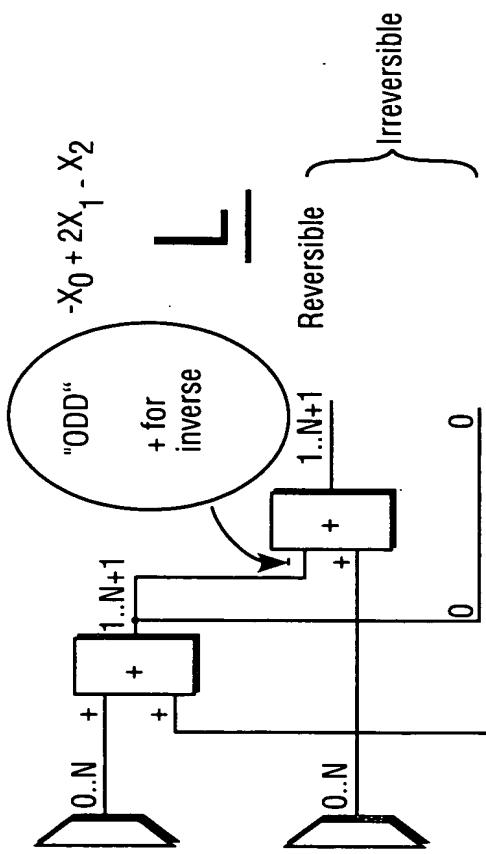
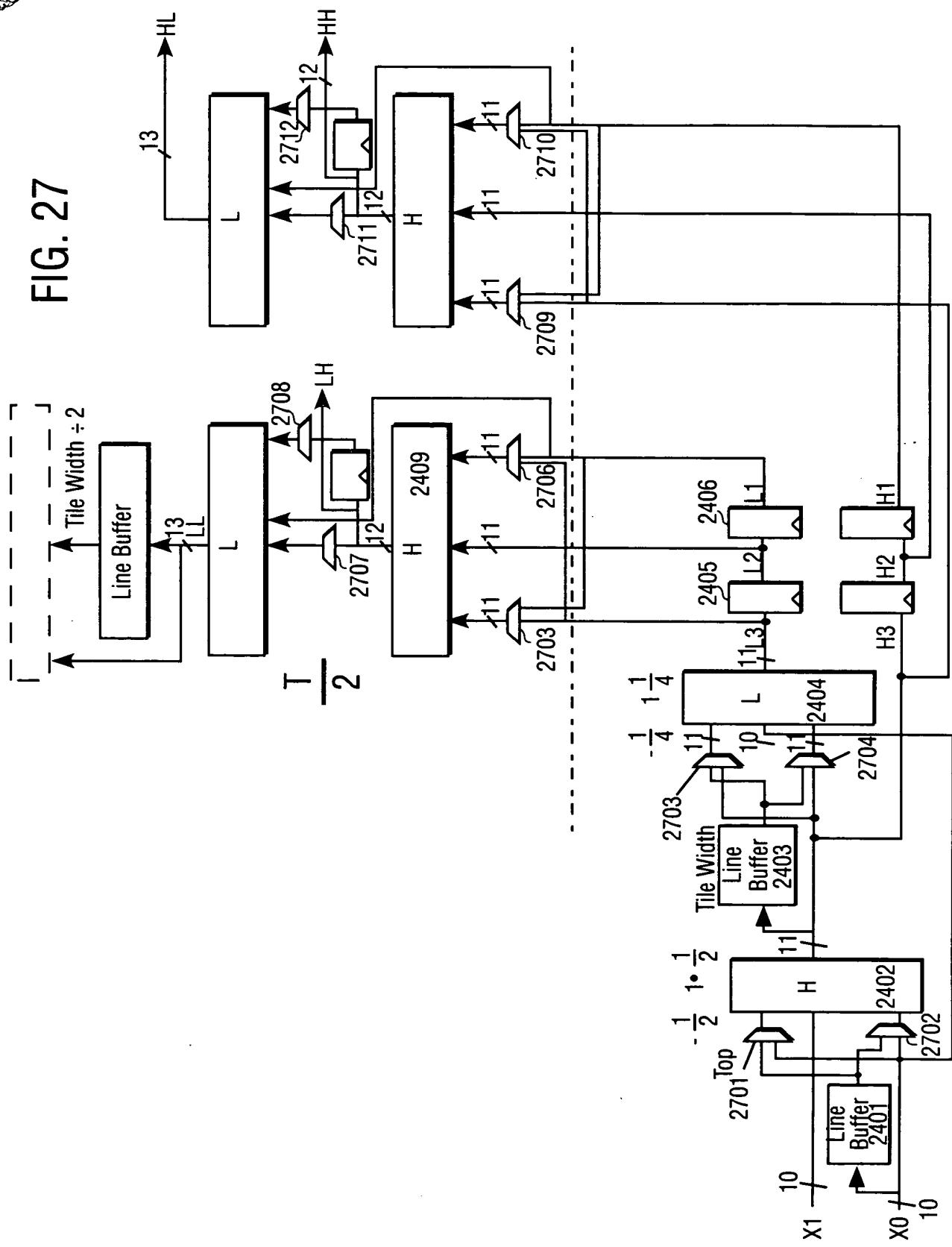


FIG. 26B



FIG. 27



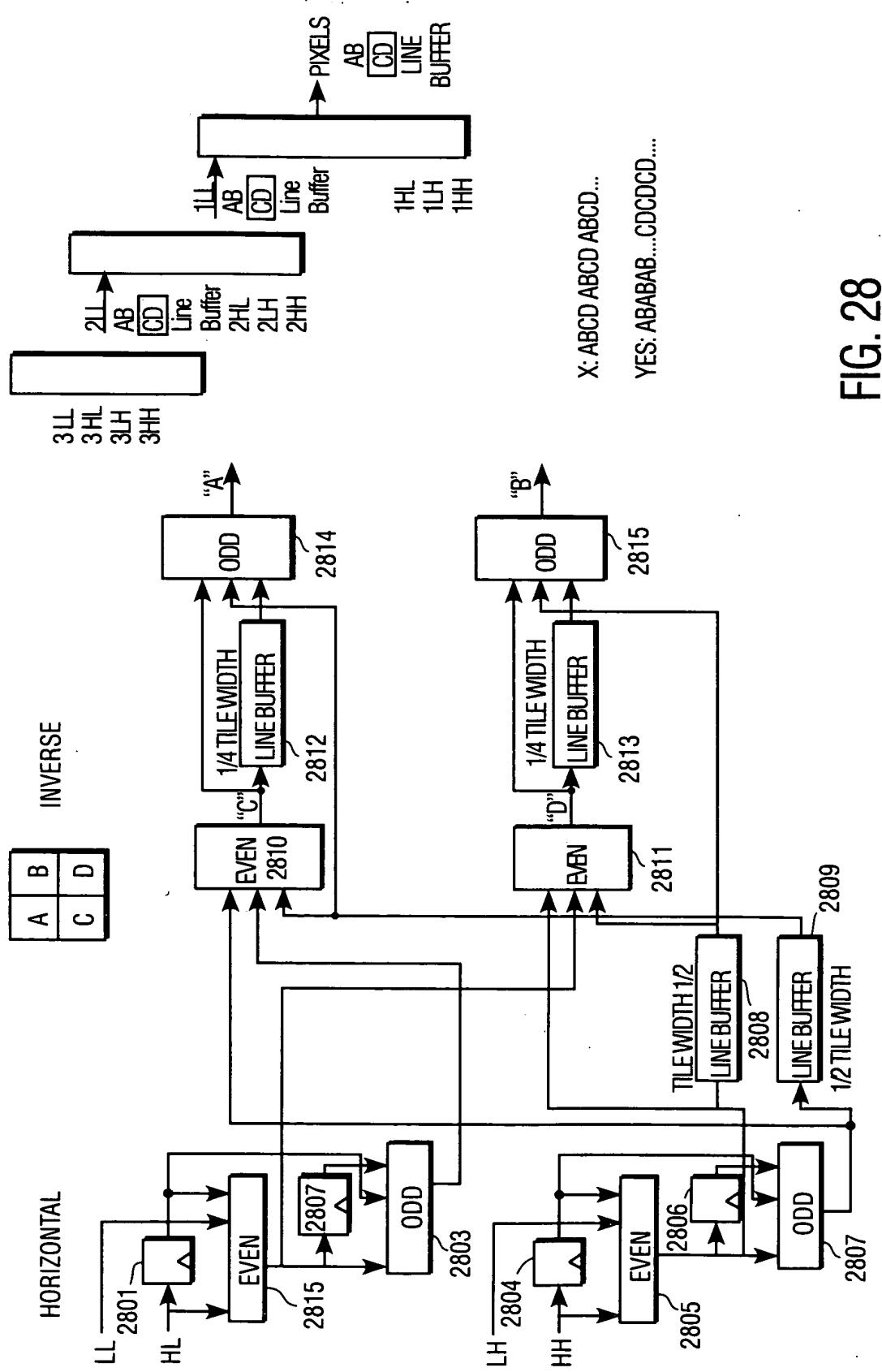


FIG. 28

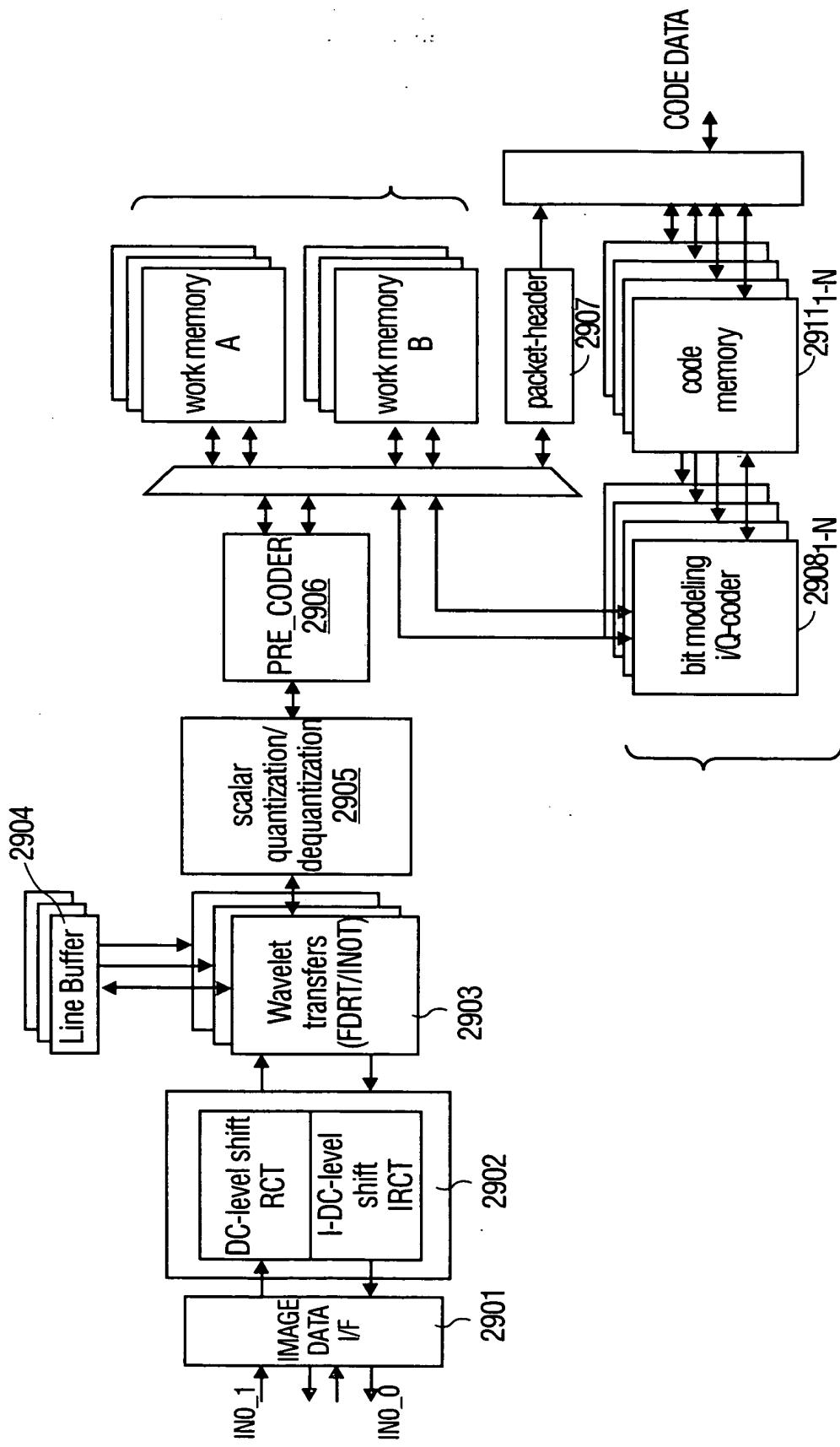


FIG. 29

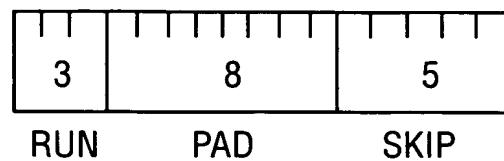


FIG. 30

8x8 region

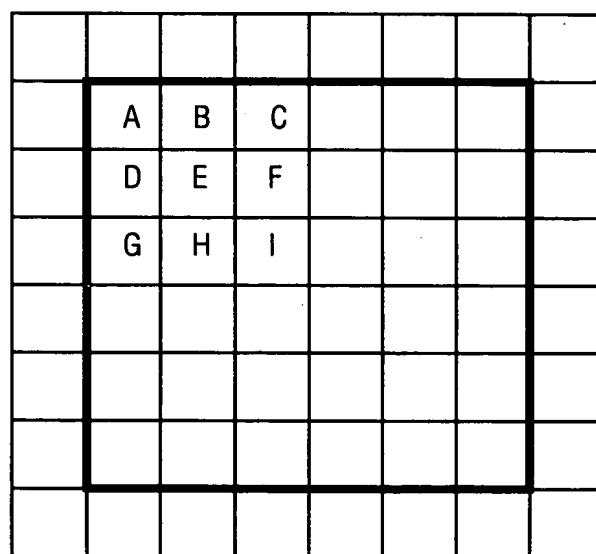


FIG. 31

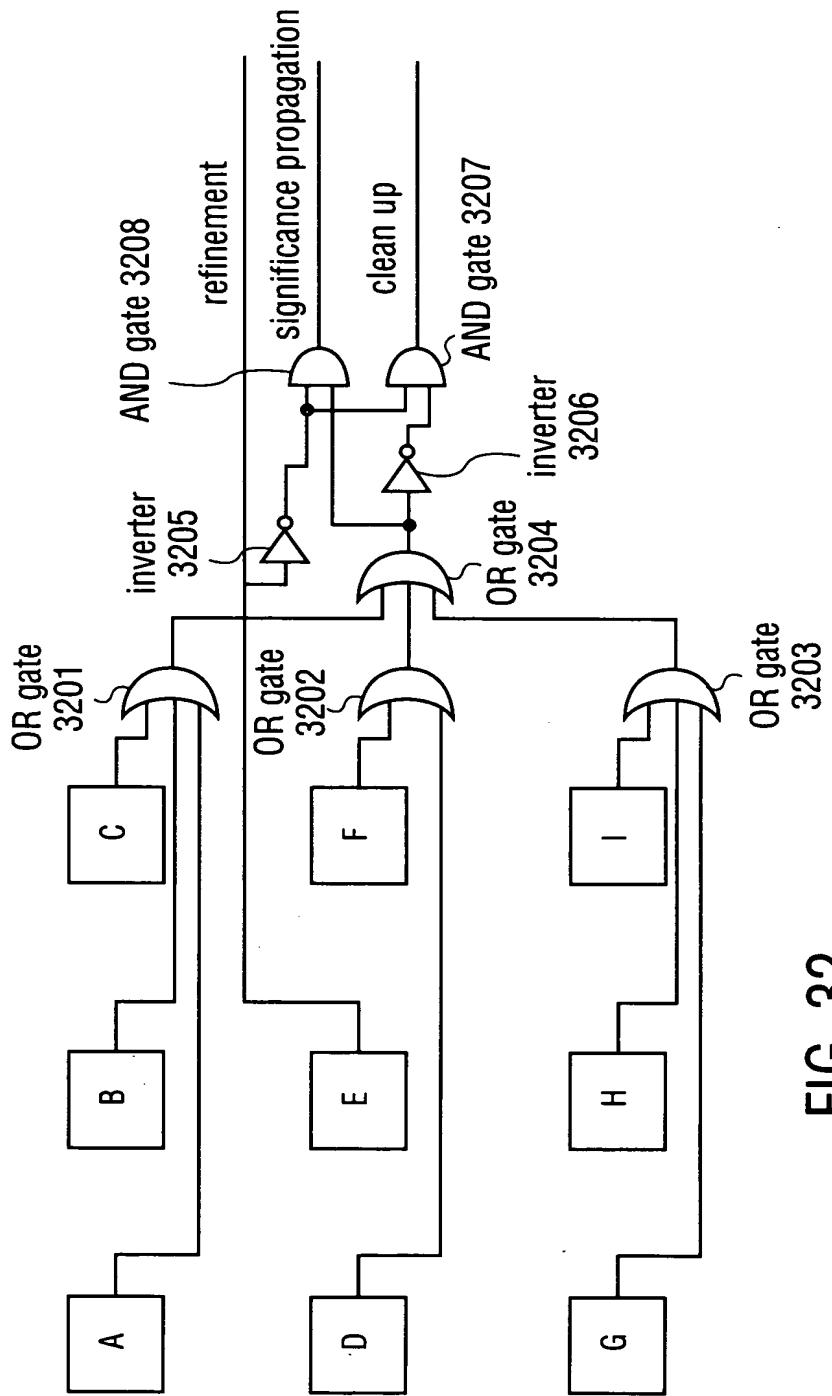


FIG. 32